Claims

What is claimed is:

1. A method for implementing enhanced examination of multiple samples comprising the steps of:

providing a metal plate including a plurality of through holes arranged in a predefined pattern, a mounting opening, and an O-ring receiving recess extending within said metal plate to said plurality of through holes;

inserting a plurality of sample holders, each within a selected one of said through holes; and

installing an O-ring within said O-ring receiving recess to provide a secure mounting of said plurality of sample holders.

2. A method for implementing enhanced examination of multiple samples as recited in claim 1 includes the step of mounting said metal plate to a stage holder; said stage holder having an upper portion extending above a base portion, and said upper portion inserted into said mounting opening of said metal plate.

3. A method for implementing enhanced examination of multiple samples as recited in claim 1 wherein the step of providing said metal plate includes the step of providing a metal plate formed of aluminum.

4. A method for implementing enhanced examination of multiple samples as recited in claim 1 wherein the step of providing said metal plate includes the step of providing a circular metal plate.

5. A method for implementing enhanced examination of multiple samples as recited in claim 1 wherein the step of providing said metal plate includes the step of providing a circular metal plate including said plurality of through holes arranged uniformly spaced apart along a common diameter.

6. A method for implementing enhanced examination of multiple samples as recited in claim 5 includes the step of providing said O-ring with a diameter less than said common diameter.

7. A scanning electron microscope (SEM) holder apparatus for implementing enhanced examination of multiple samples comprising:

a metal plate, said metal plate including a plurality of through holes arranged in a predefined pattern, a mounting opening, and an O-ring receiving recess extending within said metal plate to said plurality of through holes;

a plurality of sample holders, each received within a selected one of said plurality of through holes; and

an O-ring received within said O-ring receiving recess to provide a secure mounting of said plurality of sample holders.

8. A scanning electron microscope (SEM) holder apparatus as recited in claim 7 wherein said metal plate is formed of aluminum.

9. A scanning electron microscope (SEM) holder apparatus as recited in claim 7 includes a stage holder; said stage holder having an upper portion extending above a base portion, and said upper portion inserted into said mounting opening of said metal plate.

10. A scanning electron microscope (SEM) holder apparatus as recited in claim 7 wherein each of said plurality of sample holders includes a downwardly extending portion and an upper sample support portion; said downwardly extending portion is inserted into said through hole and is engaged by said O-ring.

11. A scanning electron microscope (SEM) holder apparatus as recited in claim 7 wherein said plurality of through holes is arranged uniformly spaced apart along a common diameter.

12. A scanning electron microscope (SEM) holder apparatus as recited in claim 11 wherein said O-ring has a selected diameter less than said common diameter, whereby said O-ring protrudes partially into said through holes.

13. A scanning electron microscope (SEM) holder apparatus as recited in claim 7 wherein said metal plate is formed of circular member.

14. A scanning electron microscope (SEM) holder apparatus as recited in claim 7 wherein said metal plate is formed of circular aluminum bar.

15. A scanning electron microscope (SEM) holder apparatus as recited in claim 14 wherein said metal plate has a diameter of about 3 inches.

16. A scanning electron microscope (SEM) holder apparatus as recited in claim 15 wherein said plurality of through holes is arranged uniformly spaced apart along a common diameter of about 2 inches.